

From: [Roberson, Sharon](#)
To: [Wagner, Christine](#)
Cc: Non-responsive based on revised scope; [Scurato, Jesse](#); [Graybill, Eric](#)
Subject: 48734 - Validated Electronic Data for Shiloh Church Road
Date: Wednesday, April 29, 2020 12:39:00 PM
Attachments: [image001.png](#)
[48734_C0B60_LTR.pdf](#)
[48734_C0B60_DVR.pdf](#)
[48734_C0B60_SSR.pdf](#)
[EQuIS 1_48734_C0B60_VAL.xls](#)
[EQuIS 2_48734_C0B60_VAL.xls](#)
[EQuIS 3_48734_C0B60_VAL.xls](#)
[EQuIS 48734_C0B60_VAL.xls](#)

Christine Wagner
US EPA Region 3
1650 Arch Street
Philadelphia, PA 19103-2029

Dear Christine,

Attached to this message you will find electronic files containing the validation report and validated data for the Shiloh Church Road site, Case # 48734, SDG C0B60. The validation of this case was completed by the Region III Environmental Services Assistance Team (ESAT).

Please contact ESAT's RPO, Eric Graybill by phone at 410-305-2665 or e-mail at Graybill.Eric@epa.gov if additional assistance is needed.

TO # 0002 TDF # 0220004



Sharon Roberson |Chemistry Data Manager| 410-305-3037 | Roberson.Sharon@epa.gov
ICF | 701 Mapes Road, Fort Meade, MD 20755-5350

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION III

Environmental Sciences Center

701 Mapes Road

Fort Meade, Maryland 20755-5350



DATE: 4/29/2020

SUBJECT: Region III Data QA Review

FROM: Eric Graybill
Region III ESAT RPO (3LS20)

A handwritten signature in blue ink that reads "Eric Graybill".

TO: CHRIS WAGNER
Hazardous Site Cleanup Division (HSCD)

Attached is the data validation report for the SHILOH CHURCH RD REMOVAL ACTION site for RAS# 48734; SDG# C0B60 completed by the Region III Environmental Services Assistance Team (ESAT) contractor, ICF International, under the direction of Region III LSASD.

If you have any questions regarding this review, please call Eric Graybill at (410)-305-2665.

Attachment

cc:

Non-responsive based on revised
Non-responsive based on revised

A large black rectangular redaction box covering several lines of text.

TO: #0002 TDF: #0220004



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Customer Service Hotline: 1-800-438-2474



ICF
ESAT Region 3
US Environmental Protection Agency Environmental Science Center
701 Mapes Road Ft. Meade, MD 20755-5350
Phone 410-305-3012

Date: April 15, 2020

To: ESAT Region 3 Project Officer

From: Non-responsive based on revised scope
Validator

Non-responsive based on revised scope

Reviewer

Subject: Organic Data Validation (S4VEM)
Shiloh Church Road
48734, COB60

Overview

This data package consisted of one (1) trip blank and two (2) water samples analyzed for trace volatile and Aroclor analytes.

Analyses were performed by Chemtech Consulting Group (CHM) according to Contract Laboratory Program (CLP) Statement of Work (SOW) SOM02.4.

Data were validated according to the National Functional Guidelines for Organic Superfund Methods Data Review and applicable USEPA Region 3 modifications. Electronic validation was performed by the Electronic Data eXchange & Evaluation System (EXES). The validation report has been assigned the Superfund Data Validation Label S4VEM (Stage_4_Validation_Electronic_Manual).

The following validation narrative is an evaluation of laboratory reported data based on the electronic data package available through the EXES Data Manager dated February 5, 2020.

Summary

No significant data quality outliers were identified that would require rejection of sample results. Less significant data quality outliers were identified resulting in estimation of sample results including but not limited to calibration standard and deuterated Monitoring Compound (DMC) as detailed below.

Minor Problems

The following analyte failed Percent Difference (%D) criteria in the calibration standard listed below. No positive results were reported for this analyte. The quantitation limit for this analyte in the sample associated with this calibration is estimated and has been qualified "UJ".

Fraction	Standard ID	Analyte	Affected Samples
Trace Volatile	VSTD00547	Bromomethane	C0B62

Recoveries of DMC 1,1-dichloroethene-d₂ were outside the lower control limit in trace volatile samples C0B61 and C0B62. No positive results were reported for analytes associated with this DMC. Quantitation limits for analytes associated with this DMC in these samples have been qualified "UJ".

Notes

Detected concentrations for target analytes less than Contract Required Quantitation Limits (CRQL) are estimated and have been qualified "J".

Laboratory blanks were free of contamination with the exception of methylene chloride <CRQL in all trace volatile blanks. Positive results <CRQL for methylene chloride have been raised to the CRQL and qualified "U".

The trip blank C0B62 reported concentrations of chloromethane, acetone, benzene, ethylbenzene, o-xylene and m,p-xylene <CRQL and toluene >CRQL. Concentrations of toluene in the field samples were >CRQL and >the blank and were not impacted. Concentrations of chloromethane, acetone and m,p-xylene <CRQL have been raised to the CRQL and qualified "U". The remaining analytes were not detected in the field samples.

Laboratory Control Samples (LCS) analyzed in Aroclor fraction reported acceptable results.

Due to insufficient sample volume, Matrix Spike/Matrix Spike Duplicate (MS/MSD) analysis were not performed as scheduled for Aroclor fraction. The Region was notified by the laboratory.

Tentatively Identified Compounds (TICs) are not reviewed by the data validators. The validation qualifiers are applied by EXES electronic validation based on laboratory qualifiers. By definition, all compounds identified as TICs should be treated as tentative identifications and all reported results should be considered estimated.

Sample calculation checks were performed. All calculated results had RPDs less than 5% of the reported results. No sample data were qualified.

Manual integrations were performed and identified by the laboratory. A subset of these was evaluated and were found to be accurate and consistent. No action was taken based on manual integrations.

Validation qualifiers are only applied by the validator to field samples. Qualifiers may be applied by EXES electronic validation to laboratory quality control samples.

Glossary of Organic Data Qualifier Codes

Validation Qualifiers	In order of descending precedence. Only one of these qualifiers may apply to any result.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.
UJ	The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
U	The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
Additional Qualifiers	Additional qualifiers may be combined with other qualifiers.
N	The analyte has been "tentatively identified" or "presumptively" as present.
B	The result is presumed a blank contaminant. This qualifier is used for drinking water samples only.
C	The target Pesticide or Aroclor analyte identification has been confirmed by Gas Chromatography/Mass Spectrometry (GC/MS). This qualifier may be added to other qualifiers.
X	The target Pesticide or Aroclor analyte identification was not confirmed when GC/MS analysis was performed. This qualifier may be added to other qualifiers.

Sample Summary Report

Project Name: SHILOH CHURCH ROAD SITE
Project

GroupID: 48734/EPW14030/C0B60

Lab Name: Chemtech Consulting Group

Sample Number: ABLK77	Method: Aroclors	Matrix: Water	MA Number:
Sample Location:	pH: 6	Sample Date:	Sample Time:
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Aroclor-1016	Target	1.0	U	ug/L	1.0	U	1.0	YES	NV
Aroclor-1221	Target	1.0	U	ug/L	1.0	U	1.0	YES	NV
Aroclor-1232	Target	1.0	U	ug/L	1.0	U	1.0	YES	NV
Aroclor-1242	Target	1.0	U	ug/L	1.0	U	1.0	YES	NV
Aroclor-1248	Target	1.0	U	ug/L	1.0	U	1.0	YES	NV
Aroclor-1254	Target	1.0	U	ug/L	1.0	U	1.0	YES	NV
Aroclor-1260	Target	1.0	U	ug/L	1.0	U	1.0	YES	NV
Aroclor-1262	Target	1.0	U	ug/L	1.0	U	1.0	YES	NV
Aroclor-1268	Target	1.0	U	ug/L	1.0	U	1.0	YES	NV

Sample Summary Report

Project Name: SHILOH CHURCH ROAD SITE
Project

GroupID: 48734/EPW14030/C0B60

Lab Name: Chemtech Consulting Group

Sample Number: ALCS77	Method: Aroclors	Matrix: Water	MA Number:
Sample Location:	pH: 6	Sample Date:	Sample Time:
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Aroclor-1016	Spike	0.98	J	ug/L	0.98	J	1.0	YES	NV
Aroclor-1221	Target	1.0	U	ug/L	1.0	U	1.0	YES	NV
Aroclor-1232	Target	1.0	U	ug/L	1.0	U	1.0	YES	NV
Aroclor-1242	Target	1.0	U	ug/L	1.0	U	1.0	YES	NV
Aroclor-1248	Target	1.0	U	ug/L	1.0	U	1.0	YES	NV
Aroclor-1254	Target	1.0	U	ug/L	1.0	U	1.0	YES	NV
Aroclor-1260	Spike	0.88	J	ug/L	0.88	J	1.0	YES	NV
Aroclor-1262	Target	1.0	U	ug/L	1.0	U	1.0	YES	NV
Aroclor-1268	Target	1.0	U	ug/L	1.0	U	1.0	YES	NV

Sample Summary Report

Project Name: SHILOH CHURCH ROAD SITE
Project

GroupID: 48734/EPW14030/C0B60

Lab Name: Chemtech Consulting Group

Sample Number: C0B60	Method: Aroclors	Matrix: Water	MA Number:
Sample Location: RW-20	pH: 6	Sample Date: 01/21/2020	Sample Time: 17:45:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Aroclor-1016	Target	1.0	U	ug/L	1.0	U	1.0	YES	S4VEM
Aroclor-1221	Target	1.0	U	ug/L	1.0	U	1.0	YES	S4VEM
Aroclor-1232	Target	1.0	U	ug/L	1.0	U	1.0	YES	S4VEM
Aroclor-1242	Target	1.0	U	ug/L	1.0	U	1.0	YES	S4VEM
Aroclor-1248	Target	1.0	U	ug/L	1.0	U	1.0	YES	S4VEM
Aroclor-1254	Target	1.0	U	ug/L	1.0	U	1.0	YES	S4VEM
Aroclor-1260	Target	1.0	U	ug/L	1.0	U	1.0	YES	S4VEM
Aroclor-1262	Target	1.0	U	ug/L	1.0	U	1.0	YES	S4VEM
Aroclor-1268	Target	1.0	U	ug/L	1.0	U	1.0	YES	S4VEM

Sample Summary Report

Project Name: SHILOH CHURCH ROAD SITE
Project

GroupID: 48734/EPW14030/C0B60

Lab Name: Chemtech Consulting Group

Sample Number: C0B60	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: RW-20	pH: 1.0	Sample Date: 01/21/2020	Sample Time: 17:45:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Chloromethane	Target	0.50	U	ug/L	0.30	J	1.0	YES	S4VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Acetone	Target	5.0	U	ug/L	2.3	J	1.0	YES	S4VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Methylene chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Chloroform	Target	0.16	J	ug/L	0.16	J	1.0	YES	S4VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Bromodichloromethane	Target	0.10	J	ug/L	0.10	J	1.0	YES	S4VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Toluene	Target	5.5		ug/L	5.5		1.0	YES	S4VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Dibromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
o-xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
m,p-xylene	Target	0.50	U	ug/L	0.12	J	1.0	YES	S4VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

Sample Summary Report

Project Name: SHILOH CHURCH ROAD SITE
Project

GroupID: 48734/EPW14030/C0B60

Lab Name: Chemtech Consulting Group

Sample Number: C0B61	Method: Aroclors	Matrix: Water	MA Number:
Sample Location: RW-20	pH: 6	Sample Date: 01/21/2020	Sample Time: 17:53:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Aroclor-1016	Target	1.0	U	ug/L	1.0	U	1.0	YES	S4VEM
Aroclor-1221	Target	1.0	U	ug/L	1.0	U	1.0	YES	S4VEM
Aroclor-1232	Target	1.0	U	ug/L	1.0	U	1.0	YES	S4VEM
Aroclor-1242	Target	1.0	U	ug/L	1.0	U	1.0	YES	S4VEM
Aroclor-1248	Target	1.0	U	ug/L	1.0	U	1.0	YES	S4VEM
Aroclor-1254	Target	1.0	U	ug/L	1.0	U	1.0	YES	S4VEM
Aroclor-1260	Target	1.0	U	ug/L	1.0	U	1.0	YES	S4VEM
Aroclor-1262	Target	1.0	U	ug/L	1.0	U	1.0	YES	S4VEM
Aroclor-1268	Target	1.0	U	ug/L	1.0	U	1.0	YES	S4VEM

Sample Summary Report

Project Name: SHILOH CHURCH ROAD SITE
Project

GroupID: 48734/EPW14030/C0B60

Lab Name: Chemtech Consulting Group

Sample Number: C0B61	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: RW-20	pH: 1.0	Sample Date: 01/21/2020	Sample Time: 17:53:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Chloromethane	Target	0.50	U	ug/L	0.23	J	1.0	YES	S4VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
1,1-Dichloroethene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Acetone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Methylene chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
trans-1,2-Dichloroethene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S4VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
cis-1,2-Dichloroethene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S4VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Chloroform	Target	0.16	J	ug/L	0.16	J	1.0	YES	S4VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Bromodichloromethane	Target	0.090	J	ug/L	0.090	J	1.0	YES	S4VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Toluene	Target	4.6		ug/L	4.6		1.0	YES	S4VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Dibromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
o-xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
m,p-xylene	Target	0.50	U	ug/L	0.12	J	1.0	YES	S4VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

Sample Summary Report

Project Name: SHILOH CHURCH ROAD SITE
Project

GroupID: 48734/EPW14030/C0B60

Lab Name: Chemtech Consulting Group

Sample Number: C0B62	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location: Trip Blank	pH: 1.0	Sample Date: 01/21/2020	Sample Time: 15:40:00
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Chloromethane	Target	0.30	J	ug/L	0.30	J	1.0	YES	S4VEM
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Bromomethane	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S4VEM
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
1,1-Dichloroethene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Acetone	Target	1.6	J	ug/L	1.6	J	1.0	YES	S4VEM
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Methylene chloride	Target	0.50	U	ug/L	0.24	JB	1.0	YES	S4VEM
trans-1,2-Dichloroethene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S4VEM
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
cis-1,2-Dichloroethene	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	S4VEM
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Chloroform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Benzene	Target	0.10	J	ug/L	0.10	J	1.0	YES	S4VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Toluene	Target	0.54		ug/L	0.54		1.0	YES	S4VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	S4VEM
Dibromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Ethylbenzene	Target	0.070	J	ug/L	0.070	J	1.0	YES	S4VEM
o-xylene	Target	0.10	J	ug/L	0.10	J	1.0	YES	S4VEM
m,p-xylene	Target	0.28	J	ug/L	0.28	J	1.0	YES	S4VEM
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	S4VEM
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

Sample Summary Report

Project Name: SHILOH CHURCH ROAD SITE
Project

GroupID: 48734/EPW14030/C0B60

Lab Name: Chemtech Consulting Group

Sample Number: VBLK54	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Bromomethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Acetone	Target	5.0	U	ug/L	5.0	U	1.0	YES	NV
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Methylene chloride	Target	0.23	J	ug/L	0.23	J	1.0	YES	NV
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	NV
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Chloroform	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	NV
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	NV
Dibromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
o-xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
m,p-xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

Sample Summary Report

Project Name: SHILOH CHURCH ROAD SITE
Project

GroupID: 48734/EPW14030/C0B60

Lab Name: Chemtech Consulting Group

Sample Number: VBLK55	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location:	pH:	Sample Date:	Sample Time:
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Bromomethane	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	NV
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Acetone	Target	5.0	U	ug/L	5.0	U	1.0	YES	NV
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Methylene chloride	Target	0.36	J	ug/L	0.36	J	1.0	YES	NV
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	NV
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Chloroform	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	NV
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	NV
Dibromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
o-xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
m,p-xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

Sample Summary Report

Project Name: SHILOH CHURCH ROAD SITE
Project

GroupID: 48734/EPW14030/C0B60

Lab Name: Chemtech Consulting Group

Sample Number: VHBLK01	Method: Trace Volatiles	Matrix: Water	MA Number:
Sample Location:	pH: 1.0	Sample Date:	Sample Time:
% Moisture:		% Solids: 0	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Chloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Vinyl chloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Bromomethane	Target	0.50	UJ	ug/L	0.50	U	1.0	YES	NV
Chloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Trichlorofluoromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
1,1-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Acetone	Target	5.0	U	ug/L	5.0	U	1.0	YES	NV
Carbon disulfide	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Methyl Acetate	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Methylene chloride	Target	0.41	J	ug/L	0.41	JB	1.0	YES	NV
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Methyl tert-butyl Ether	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
1,1-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
2-Butanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	NV
Bromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Chloroform	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Cyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Carbon tetrachloride	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Benzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
1,2-Dichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Trichloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Methylcyclohexane	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
1,2-Dichloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Bromodichloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	NV
Toluene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Tetrachloroethene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
2-Hexanone	Target	5.0	U	ug/L	5.0	U	1.0	YES	NV
Dibromochloromethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
1,2-Dibromoethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Chlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Ethylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
o-xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
m,p-xylene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Styrene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Bromoform	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Isopropylbenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
1,2,4-trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.50	U	1.0	YES	NV
Total Alkanes	TIC		N	ug/L		N	1.0	YES	NV

Sample Summary Report

Project Name: SHILOH CHURCH ROAD SITE
Project

GroupID: 48734/EPW14030/C0B60

Lab Name: Chemtech Consulting Group

ESAT DATA VALIDATION EVALUATION CHECKLIST
 Contract # EP-W-13-023

TDF #: 0220004	Revision: 0	Case #: 48734	SDG: C0B60
Site Name: Shiloh Church Road			
Parameter(s): Trace VOA /Aroclor			
Method(s): SOM02.4			
Laboratory: CHM			
Reviewer: Non-responsive based on revised scope	Date Submitted to EPA: 4/28/2020		
EPA RPM/OSC: Chris Wagner	Number of hours spent on review: 4		
cc: Non-responsive based on revised scope (Weston Solutions)	Number of Samples/Aliquots: 3/5		
Validation Level/Stage: M3/S4VEM			

<u>CRITERIA</u>	<u>YES</u>	<u>NO</u>	<u>COMMENTS</u>
Format according to Region III protocol	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Clarity of report	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Qualifiers applied correctly	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Consistency between narrative and data summary form(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Error-free transcription	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

EFFICIENCY OF CONTRACTOR

Approval recommended for current submission	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Time spent on review is reasonable	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Technical Evaluation	3.6		Non-responsive based on revised scope

<u>ESD OVERSIGHT DATES</u>	<u>TPO</u>	<u>Oversight</u>	<u>ESAT</u>
Received at EPA	4/28/2020		
Oversight assigned	4/28/2020		
Oversight received		4/29/2020	
Oversight completed		4/29/2020	
Feedback given	4/29/2020		
Mailed to RPM			

Data Validation Checklist - Organics

TDF #: 0220004

Case/DAS #: 48734

Site Name: Shiloh Church Road

SDG #: C0B60

Program: CLP Tier IV Other

DV Type: Org Ino HiRes Rad Asb

Parameter: VOA/SV/PAH SIM/Pest/Aroclor

DV Regional Level: M3

SOW/Method: SOM02.4

DV Stage: S4VEM

Laboratory Code: CHM

Reviewer: Non-responsive based on rev

Due Date: 4/10/20

General

CRITERIA	CHECK	COMMENTS
EPA Oversight Checklist		
TDF #	<input checked="" type="checkbox"/>	
Case #	<input checked="" type="checkbox"/>	
SDG #	<input checked="" type="checkbox"/>	
Site Name	<input checked="" type="checkbox"/>	
Laboratory	<input checked="" type="checkbox"/>	
EPA OSC/RPM	<input checked="" type="checkbox"/>	
CC: (Contractors)	<input checked="" type="checkbox"/>	
Validation Level/Stage	<input checked="" type="checkbox"/>	
Parameter	<input checked="" type="checkbox"/>	
Number of Samples/Aliquots	<input checked="" type="checkbox"/>	
Narrative		
Report Header	<input checked="" type="checkbox"/>	
Report Footer	<input checked="" type="checkbox"/>	
Overview		
Laboratory	<input checked="" type="checkbox"/>	
Analytical method	<input checked="" type="checkbox"/>	
Analytical services program	<input checked="" type="checkbox"/>	
NFG reference	<input checked="" type="checkbox"/>	
Validation level	<input checked="" type="checkbox"/>	
Data package receipt date	<input checked="" type="checkbox"/>	
Criteria		
Qualifier list	<input checked="" type="checkbox"/>	
Appendix A		
Regional COC/ARF	<input checked="" type="checkbox"/>	
Appendix B		
Laboratory narrative/Excerpts	<input checked="" type="checkbox"/>	
Appendix C		
EXES report/Supplemental	<input checked="" type="checkbox"/>	

General Comments:

Reviewed By: Non-responsive based on revised scope _____ Date: 4/16/20 _____

Data Validation Checklist - Organics

TDF #: 0220004

Case/DAS #: 48734

Site Name: Shiloh Church Road

SDG #: C0B60

Program: CLP Tier IV Other

DV Type: Org Ino HiRes Rad Asb

Parameter: VOA/SV/PAH SIM/Pest/Aroclor

DV Regional Level: M3

SOW/Method: SOM02.4

DV Stage: S4VEM

Laboratory Code: CHM

Reviewer: Non-responsive based on rev

Technical

Section	Check	Comments	
Overview	<input checked="" type="checkbox"/>		
Matrix and # of samples	<input checked="" type="checkbox"/>		
Field QC samples	<input type="checkbox"/>		
Summary	<input checked="" type="checkbox"/>		
Major problems	<input type="checkbox"/>		
Minor problems	<input checked="" type="checkbox"/>	CCV %D, low DMC	
Notes	<input checked="" type="checkbox"/>		
Compounds below CRQL	<input checked="" type="checkbox"/>		
Blank contaminants	<input checked="" type="checkbox"/>	Methylene chloride	
Field Duplicates	<input type="checkbox"/>		
Field/Trip Blanks	<input checked="" type="checkbox"/>	TB C0B62	
Dilutions	<input type="checkbox"/>		
Carryover	<input type="checkbox"/>		
Manual integration	<input checked="" type="checkbox"/>		
TICs	<input type="checkbox"/>		
Calculation	<input type="checkbox"/>		
SSRs/Form Is	<input checked="" type="checkbox"/>		
Non-Detect RLs	<input type="checkbox"/>		
EDD	<input checked="" type="checkbox"/>		
DV Item	Check	Qualifier Applied	Comments
Preservation/Holding Time	<input type="checkbox"/>		
Instrument Performance Check	<input type="checkbox"/>		
Initial Calibration	<input type="checkbox"/>		
Continuing Calibration	<input checked="" type="checkbox"/>	UJ	Bromomethane
Blanks	<input checked="" type="checkbox"/>	U	Acetone, chloromethane, mpxlyene
DMCs/Surrogates	<input checked="" type="checkbox"/>	UJ	1,1-Dichloroethene-d2
MS/MSDs	<input type="checkbox"/>		
LCS/LCSDs	<input type="checkbox"/>		
Internal Standards	<input type="checkbox"/>		
Other:	<input type="checkbox"/>		

General Comments:

Reviewed By:

Non-responsive based on revised scope

Date: 4/28/2020

Data Validation Report

Data Review Results

Page 1

Thu, 6

Feb

2020

10:11:53

Project Name: SHILOH CHURCH ROAD SITE Project

GroupID: 48734/EPW14030/C0B60

Lab Name: Chemtech Consulting Group

Submission Group Id: 31706319

Organization: EPA Region 3

SOW: SOM02.4

HoldingTimes_Preservation

NONE FOUND

Data Validation Report

Data Review Results

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10:11:53

Project Name: SHILOH CHURCH ROAD SITE Project

GroupID: 48734/EPW14030/C0B60

Lab Name: Chemtech Consulting Group

Submission Group Id: 31706319

Organization: EPA Region 3

SOW: SOM02.4

TUNE

NONE FOUND

Data Validation Report

Data Review Results

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Thu, 6

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10:11:53

Project Name: SHILOH CHURCH ROAD SITE Project

GroupID: 48734/EPW14030/C0B60

Lab Name: Chemtech Consulting Group

Submission Group Id: 31706319

Organization: EPA Region 3

SOW: SOM02.4

InitialCalibration

NONE FOUND

Data Validation Report

Data Review Results

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2020

10:11:53

Project Name: SHILOH CHURCH ROAD SITE Project

GroupID: 48734/EPW14030/C0B60

Lab Name: Chemtech Consulting Group

Submission Group Id: 31706319

Organization: EPA Region 3

SOW: SOM02.4

InitialCalibrationVerification

NONE FOUND

Data Validation Report

Data Review Results

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10:11:53

Project Name: SHILOH CHURCH ROAD SITE Project

GroupID: 48734/EPW14030/C0B60

Lab Name: Chemtech Consulting Group

Submission Group Id: 31706319

Organization: EPA Region 3

SOW: SOM02.4

ContinuingCalibrationVerification

Method - Trace Volatiles

Test Name: EXES-1209

Defect Message: The following samples are associated with an opening or closing CCV with % Difference exceeding criteria. Detecteds are qualified as estimated J. Nondetects are qualified as estimated UJ.

Associated Samples: C0B62, VBLK55, VHBLK01

Defective Analyte	Defective Samples/Analyses
Bromomethane	VSTD00547

Data Validation Report

Data Review Results

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10:11:53

Project Name: SHILOH CHURCH ROAD SITE Project

GroupID: 48734/EPW14030/C0B60

Lab Name: Chemtech Consulting Group

Submission Group Id: 31706319

Organization: EPA Region 3

SOW: SOM02.4

Blanks

Method - Trace Volatiles

Test Name: EXES-1111

Defect Message: The following samples have analyte results reported less than CRQLs. The associated storage blank results are less than CRQLs. Detects are qualified U. Sample results have been reported at CRQLs.

Associated Samples: C0B62

Defective Analyte	Defective Samples/Analyses
Methylene chloride	C0B62

Data Validation Report

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Data Review Results

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Project Name: SHILOH CHURCH ROAD SITE Project

GroupID: 48734/EPW14030/C0B60

Lab Name: Chemtech Consulting Group

Submission Group Id: 31706319

Organization: EPA Region 3

SOW: SOM02.4

DMC_Surrogate

Method - Trace Volatiles

Test Name: EXES-792

Defect Message: The following samples have DMC/surrogate percent recoveries less than the primary minimum criteria but greater than or equal to the expanded minimum criteria. Detects are qualified as estimated J-. Nondetects are qualified as estimated UJ.

Associated Samples: C0B61, C0B62

Defective Analyte	Defective Samples/Analyses
1,1-Dichloroethene-d2	C0B61, C0B62

Data Validation Report

Data Review Results

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10:11:53

Project Name: SHILOH CHURCH ROAD SITE Project

GroupID: 48734/EPW14030/C0B60

Lab Name: Chemtech Consulting Group

Submission Group Id: 31706319

Organization: EPA Region 3

SOW: SOM02.4

MatrixSpikes

NONE FOUND

Data Validation Report

Data Review Results

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10:11:53

Project Name: SHILOH CHURCH ROAD SITE Project

GroupID: 48734/EPW14030/C0B60

Lab Name: Chemtech Consulting Group

Submission Group Id: 31706319

Organization: EPA Region 3

SOW: SOM02.4

LaboratoryControlSample

NONE FOUND

Data Validation Report

Data Review Results

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10:11:53

Project Name: SHILOH CHURCH ROAD SITE Project

GroupID: 48734/EPW14030/C0B60

Lab Name: Chemtech Consulting Group

Submission Group Id: 31706319

Organization: EPA Region 3

SOW: SOM02.4

Cleanup

NONE FOUND

Data Validation Report

Data Review Results

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10:11:53

Project Name: SHILOH CHURCH ROAD SITE Project

GroupID: 48734/EPW14030/C0B60

Lab Name: Chemtech Consulting Group

Submission Group Id: 31706319

Organization: EPA Region 3

SOW: SOM02.4

InternalStandard

NONE FOUND

Data Validation Report

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Data Review Results

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10:11:53

Project Name: SHILOH CHURCH ROAD SITE Project

GroupID: 48734/EPW14030/C0B60

Lab Name: Chemtech Consulting Group

Submission Group Id: 31706319

Organization: EPA Region 3

SOW: SOM02.4

Target Analyte Quantitation

Method - Aroclors

Test Name: EXES-790

Defect Message: The following samples have analyte results greater than or equal to detection limit (MDL) and below quantitation limit (CRQL). Detects are qualified as estimated J.

Associated Samples: ALCS77

Defective Analyte	Defective Samples/Analyses
Aroclor-1016	ALCS77
Aroclor-1260	ALCS77

Method - Trace Volatiles

Test Name: EXES-790

Defect Message: The following samples have analyte results greater than or equal to detection limit (MDL) and below quantitation limit (CRQL). Detects are qualified as estimated J.

Associated Samples: C0B60, C0B61, C0B62, VBLK54, VBLK55, VHBLK01

Defective Analyte	Defective Samples/Analyses
Chloromethane	C0B60, C0B61, C0B62
Acetone	C0B60, C0B62
Methylene chloride	C0B62, VBLK54, VBLK55, VHBLK01
Chloroform	C0B60, C0B61
Benzene	C0B62
Bromodichloromethane	C0B60, C0B61
Ethylbenzene	C0B62
o-xylene	C0B62
m,p-xylene	C0B60, C0B61, C0B62

Data Validation Report

Data Review Results

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10:11:53

Project Name: SHILOH CHURCH ROAD SITE Project

GroupID: 48734/EPW14030/C0B60

Lab Name: Chemtech Consulting Group

Submission Group Id: 31706319

Organization: EPA Region 3

SOW: SOM02.4

PercentSolids

NONE FOUND

Data Validation Report

Data Review Results

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10:11:53

Project Name: SHILOH CHURCH ROAD SITE Project

GroupID: 48734/EPW14030/C0B60

Lab Name: Chemtech Consulting Group

Submission Group Id: 31706319

Organization: EPA Region 3

SOW: SOM02.4

SampleAnalysis

NONE FOUND

SDG COVER PAGE

Lab Name: Chemtech Consulting Group Contract: EPW14030
 Lab Code: CHM Cas No.: 48734 MA No.: _____ SDG No.: C0B60
 SOW No. : SOM02.4

EPA Sample No.	Lab Sample ID	Trace VOA	Low	Analysis Method				
			Med VOA	SVOA	SVOA SIM	PEST	ARO	
C0B60	L1221-01	X						X
C0B61	L1221-02	X						X
C0B62	L1221-03	X						
VHBLK01	L1221-04	X						

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the SDG Narrative. Release of the data contained in this hardcopy data package and in the electronic data submitted has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Non-responsive based on revised scope

Non-responsive based on revised scope

Signature: _____ Name: _____

Date: 1/31/2020 Title: QA -de

SDG NARRATIVE**LAB NAME: CHEMTECH CONSULTING GROUP****CASE: 48734****SDG: COB60****CONTRACT: EPW14030****LAB CODE: CHM****CHEMTECH PROJECT: L1221****MODIFICATION REF. NUMBER: NA**

Sample ID	EPA Sample ID	pH
L1221-01	C0B60	1.0
L1221-02	C0B61	1.0
L1221-03	C0B62	1.0

3 Water samples were delivered to the laboratory intact on 01/22/2020.

Test requested on the Chain of Custody was Volatile Organic, Aroclor, by Method SOM02.4.

The temperature of the samples was measured using an I R Gun. The samples temperature was 1.2 degree Celsius for the samples received on 01/22/2020.

Shipping Discrepancies and/or QC issues:

Issue 1: Samples for this Case are scheduled with a 14 day TAT; however, the COC the laboratory received lists samples with a 7 day TAT. The laboratory would like to confirm that they may proceed with the scheduled TAT.

Resolution 1: In accordance with previous direction from Region 3, the laboratory will note the issue in the SDG Narrative and proceed with the analysis of the samples as indicated on the Scheduling Notification Form. The resolution will be applied to all COCs received for this Case that list information that does not match the Scheduling Notification Form.

Issue 2: Laboratory QC is scheduled for ARO analysis and the scheduled number of samples have been received; however, no sample was designated for laboratory QC and sufficient sample volume for QC was not received. The laboratory would like to confirm that they may proceed without laboratory QC for the ARO samples.

Resolution 2: Per Region 3, the laboratory will proceed without performing laboratory QC for the ARO samples. Please note the issue in the SDG Narrative and proceed with the analysis of the samples.

Trace Volatiles:

The analysis performed on instrument MSVOA_V were done using GC column DB-624UI 20m 0.18mm 1.0 um. Cat#121-1324UI. The Trap was supplied by OI Analytical, OI #10 Trap, OI Eclipse 4660 Concentrator.

The analysis of VOC-Low Level -15 was based on method SOM02.4_Trace.

The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria except for C0B61 [1,1-Dichloroethene-d2 - 59%], C0B62 [1,1-Dichloroethene-d2 - 54%]. As per method, up to three surrogates are allowed to fail. No corrective action was taken.

The Retention Times met requirements.

The Internal Standards Areas met the acceptable requirements.

Instrument Performance Check met requirements.

The Tuning criteria met requirements.

The initial Calibration met requirements.

The Closing Continuing Calibration (VSTD00547) file ID VV014399.D met the requirements except for Bromomethane (74.9%). As per method, up to two targets analyte in closing CCV are allowed to exceed the %D values. Therefore no further corrective action was taken.

The Blank analysis indicated presence of Methylene chloride[0.23ug/L] FileID:VV014374.D (VBLK54) {VV0123WBL01} due to possible lab contamination.

The Blank analysis indicated presence of Methylene chloride[0.36ug/L] FileID:VV014382.D (VBLK55) {VV0124WBL01} due to possible lab contamination. As per method, less than 2 times the respective CRQL is allowed to fail for Methylene chloride. Therefore, no further corrective action was taken.

The storage blank analysis indicated presence of Methylene chloride [0.41ug/L] FileID: VV014385.D {VHBLK01} due to lab contamination. As per method, less than 2 times the respective CRQL is allowed to fail for Methylene chloride. Therefore no further corrective action was taken.

See **Manual Integration report** for the manual integration information at the end of the case narrative.

Calculation:

$$\text{Concentration in ug/L} = \frac{(Ax)(Is)(DF)}{(Ais)(RRF)(Vo)}$$

Where,

Ax = Area of the characteristic ion (EICP) for the compound to be measured.

Ais = Area of the characteristic ion (EICP) for the internal standard.

Is = Amount of internal standard added in ng.

RRF = Mean Relative Response Factor from the initial calibration standard.

Vo = Total volume of water purged, in mL.

DF = Dilution Factor.

Example Calculation for sample C0B60 for Toluene:

$$Ax = 1399362$$

$$Is = 125$$

$$RRF = 1.626$$

$$DF = 1$$

$$Ais = 788960$$

$$Vo. = 25$$

$$\text{Concentration in ug/L} = \frac{(1399362)(125)(1)}{(788960)(1.626)(25)}$$

$$= 5.45\text{ug/L}$$

$$\text{Reported Result} = 5.5\text{ug/L}$$

Relative Response Factor = **Dichlorodifluoromethane**: RUN VV010220 for 0.5 ppb

$$RRF = \frac{\text{Area of compound}}{\text{Area of Internal Standard}} \times \frac{\text{Conc. of Internal Standard}}{\text{Conc. of Compound}}$$

$$RRF = \frac{32587}{871373} \times \frac{5.0}{0.5}$$

$$RRF = 0.374$$

Aroclors:

The analysis were performed on instrument GCECD_R. The front column is ZB-MR1 which is 30 meters, 0.32 mm ID, 0.5 um df, Catalogue # 7HM-G016-17. The rear column is ZB-MR2 which is 30 meters, 0.32 mm ID, 0.25 µm; Catalogue # 7HM-G017-11.

Samples were analyzed on a single injection dual column system. To distinguish the second column analysis from the first column a -2 suffix was added to the file id on the form 8 and form 1. These referrers to forms were both columns are reported. Form 1s for the IBLK and ALCS have the -2 on the form as per the method section 3.3.7.1 foot notes.

Aroclor sample were extracted by Method SOM02.4 on 01/22/2020 and analyzed on 01/23/2020. All the samples were subjected to a Sulfuric acid cleanup. The samples were extracted and analyzed within contractual holding time.

The Surrogate recoveries met the acceptable criteria

The Retention Times met requirements.

The Laboratory Control Sample met requirements.

The Blank analysis did not indicate the presence of lab contamination.

The Initial Calibration met the requirements.

The Continuing Calibrations met the requirements.

See **Manual Integration report** for the manual integration information at the end of the case narrative.

Calculation for Concentration in Water Samples:

$$\text{Concentration ug/L} = \frac{(Ax)(Vt)(DF)(GPC)}{(CF)(Vo)(Vi)}$$

Where,

Ax = Response (peak area or height) of the compound to be measured.

CF = Mean Calibration Factor from the initial calibration (area/ng).

Vo = Volume of water extracted in mL.

Vi = Volume of extract injected in uL.

Vt = Volume of the concentrated extract in uL

$$GPC = \frac{V_{in}}{V_{out}} = GPC \text{ factor (If no GPC is performed, GPC=1)}$$

Vin = Volume of extract loaded onto GPC column.

Vout = Volume of extract collected after GPC cleanup.

DF = Dilution Factor

Example of AR1260 calculation for Peak 1

$$\begin{array}{l} \text{Calibration factor Peak 1 100ppb ISTD = } \frac{\text{peak area}}{\text{Mass injected ng}} \\ \text{Column1} \end{array}$$

$$= \frac{31248307}{0.100}$$

= 312483070 calibration factor for Peak 1 100ppb

Average of 5 peaks = 294018451

No target Aroclors were detected in the samples.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature: [REDACTED] Non-responsive based on revised scope
Name: [REDACTED] Non-responsive based on revised scope

Date: 1/31/2020 Title: Document Control Officer.



Manual Integration Report

Sequence:	VV010220	Instrument	MSVOA_v
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Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
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Manual Integration Report

Sequence:	VV012320	Instrument	MSVOA_v
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Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
-----------	---------	-----------	-----------	-----------	---------------	---------------	--------



Manual Integration Report

Sequence:	VV012420	Instrument	MSVOA_v
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Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
-----------	---------	-----------	-----------	-----------	---------------	---------------	--------



284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Manual Integration Report

Sequence:	PR010920	Instrument	ECD_r
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Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
AR1262ICC1600 / AR1262501	PR044311.D	AR-1262-4	Non-responsive	1/13/2020 8:42:05 AM	Non-responsive based on	1/13/2020 8:55:00	Peak Integrated by Software incorrectly



Manual Integration Report

Sequence:	PR012520	Instrument	ECD_r
-----------	----------	------------	-------

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
-----------	---------	-----------	-----------	-----------	---------------	---------------	--------